

## 950M Wheel Loader

# **Technical Specifications**

Engine – (Tier 3/Stage IIIA equivalent) <sup>1</sup>					
Engine Model	Cat® C7.1				
Maximum Power (2,000 rpm)					
SAE J1995	196 kW	263 hp			
ISO 14396	195 kW	261 hp			
ISO 14396 (metric)		265 hp			
Maximum Net Power (2,000 rpm)					
SAE J1349	185 kW	248 hp			
ISO 9249	185 kW	248 hp			
ISO 9249 (metric)		252 hp			
Peak Gross Torque (1,400 rpm)					
SAE J1995	1053 N·m	777 lbf-ft			
Maximum Net Torque (1,400 rpm)					
SAE J1349	984 N·m	726 lbf-ft			
Bore	105 mm	4.13 in			
Stroke	135 mm	5.31 in			
Displacement	7.01 L	428 in <sup>3</sup>			

- 1 Meets Brazil MAR-1 and UN ECE R96 Stage IIIA emission standards, equivalent to U.S. EPA Tier 3 and EU Stage IIIA.
- The power ratings apply at the stated speed when tested under the reference conditions for the specified standards.
- The net power advertised is the power available at the flywheel when the engine is equipped with fan, alternator, air cleaner and aftertreatment.
- The gross power advertised is with the fan at maximum speed.

Engine – (Tier 4 Final/Stage V	<b>/</b> ) <sup>2</sup>	
Engine Model	Cat C7.1	
Maximum Power (2,100 rpm)		
SAE J1995	187 kW	250 hp
ISO 14396	186 kW	249 hp
ISO 14396 (metric)		253 hp
Maximum Net Power (2,100 rpm)		
SAE J1349	171 kW	230 hp
ISO 9249	171 kW	230 hp
ISO 9249 (metric)		232 hp
Peak Gross Torque (1,300 rpm)		
SAE J1995	1235 N·m	911 lbf-ft
Maximum Net Torque (1,300 rpm)		
SAE J1349	1163 N·m	858 lbf-ft
Bore	105 mm	4.13 in
Stroke	135 mm	5.31 in
Displacement	7.01 L	428 in <sup>3</sup>

- 2 Meets U.S. EPA Tier 4 Final, either EU Stage V or EU Stage IV\* emission standards.
- \* Stage IV engines comply with the transition provisions of the EU nonroad emission regulation
- The power ratings apply at the stated speed when tested under the reference conditions for the specified standards.
- The net power advertised is the power available at the flywheel when the engine is equipped with fan, alternator, air cleaner and aftertreatment.
- The gross power advertised is with the fan at maximum speed.

Buckets		
Bucket Capacities	2.50-9.20 m <sup>3</sup>	3.30-12.00 yd <sup>3</sup>
Weight		
Operating Weight	19 213 kg	42,357 lb

 Weight based on a machine configuration with Michelin 23.5R25 XHA2 L3 radial tires, full fluids, operator, standard counterweight, cold start, roading fenders, Product Link™, manual diff lock/open axles (front/rear), power train guard, secondary steering, sound suppression and a 3.1 m³ (4.1 yd³) general purpose bucket with BOCE.



# Operating Specifications Static Tipping Load – Full 40° Turn With Tire Deflection 11 005 kg 24,262 lb No Tire Deflection 11 760 kg 25,926 lb Breakout Force 181 kN 40,690 lbf

• Full compliance to ISO 14397-1:2007 Sections 1 thru 6, which requires 2% verification between calculations and testing.

Transmission		
Forward 1	6.9 km/h	4.3 mph
Forward 2	12 km/h	7.5 mph
Forward 3	19.3 km/h	12.0 mph
Forward 4	25.7 km/h	16.0 mph
Forward 5	39.5 km/h	24.5 mph
Reverse 1	6.9 km/h	4.3 mph
Reverse 2	12 km/h	7.5 mph
Reverse 3	25.7 km/h	16.0 mph

• Maximum travel speed in standard vehicle with empty bucket and standard L3 tires with 787 mm (31 in) roll radius.

Hydraulic System			
Implement Pump Type	Variable axial	piston	
Implement System			
Maximum Pump Output (2,150 rpm)	286 L/min	76 gal/min	
Maximum Operating Pressure	29 300 kPa	4,250 psi	
Optional 3 <sup>rd</sup> /4 <sup>th</sup> Function Maximum Flow	240 L/min	63 gal/min	
Optional 3 <sup>rd</sup> /4 <sup>th</sup> Function Maximum Pressure	21 780 kPa	3,159 psi	
Hydraulic Cycle Time with Rated Payload			
Raise from Carry Position	5.1 Se	conds	
Dump, at Maximum Raise	1.5 Seconds		
Lower, Empty, Float Down	2.3 Seconds		
Total	8.9 Se	conds	

Brakes	
Brakes	Brakes meet ISO 3450:2011
	standards

Axles	
Front	Fixed
Rear	Oscillating ±13 degrees
Maximum Single-Wheel Rise and Fall	496 mm 1.6 ft

Cab	
ROPS/FOPS	ROPS/FOPS meet
	ISO 3471:2008 and
	ISO 3449:2005 Level II standards
	Standards

#### Sound

The sound values indicated below are for specific operating conditions only. Machine and operator sound levels will vary at different engine and/or cooling fan speeds. Hearing protection may be needed when the machine is operated with a cabin that is not properly maintained, or when the doors and/or windows are open for extended periods or in a noisy environment.

Operator Sound Pressure Level (ISO 6396:2008)	
Tier 3/Stage IIIA Equivalent	72 dB(A)*
Tier 4 Final/Stage V	70 dB(A)*
Exterior Sound Power Level (ISO 6395:2008)	107 dB(A)*
Exterior Sound Pressure Level (SAE J88:2013)	75 dB(A)**

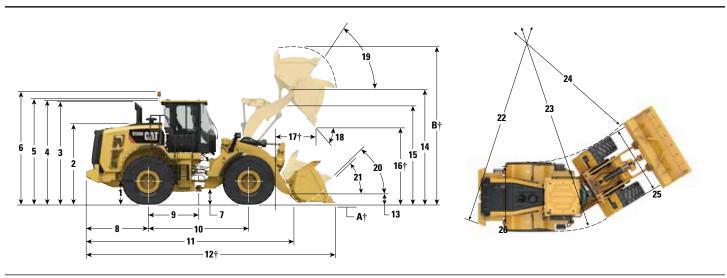
- \*For a typical machine configuration, measured according to the procedures specified with the cooling fan speed set at maximum value.
- \*\*For a typical machine configuration, measured according to the procedures specified. The measurement was conducted under the following conditions: distance of 15 m (49.2 ft), moving forward in second gear ratio with the cooling fan speed set at maximum value.

Service Refill Capacities		
Fuel Tank	275 L	72.6 gal
DEF Tank*	16 L	4.2 gal
Cooling System	59 L	15.6 gal
Crankcase	22 L	5.8 gal
Transmission	43 L	11.4 gal
Differentials and Final Drives – Front	43 L	11.4 gal
Differentials and Final Drives – Rear	43 L	11.4 gal
Hydraulic Tank	125 L	33.0 gal

\*Must meet the requirements outlined in ISO 22241-1 for Tier 4 Final/Stage V models.

#### **Dimensions**

All dimensions are approximate.



	Standa	Standard Lift		High Lift		
Height to Axle Centerline	747 mm	2'5"	747 mm	2'5"		
Height to Top of Hood	2697 mm	8'10"	2697 mm	8'10"		
Height to Top of Exhaust Pipe	3413 mm	11'2"	3413 mm	11'2"		
Height to Top of ROPS	3451 mm	11'4"	3451 mm	11'4"		
Height to Top of Product Link Antenna	3653 mm	12'0"	3653 mm	12'0"		
Height to Top of Warning Beacon	3747 mm	12'4"	3747 mm	12'4"		
Ground Clearance	367 mm	1'2"	367 mm	1'2"		
Center Line of Rear Axle to Edge of Counterweight	1942 mm	6'4"	1942 mm	6'4"		
Center Line of Rear Axle to Hitch	1675 mm	5'6"	1675 mm	5'6"		
Wheelbase	3350 mm	11'0"	3350 mm	11'0"		
Overall Length (without bucket)	6906 mm	22'8"	7488 mm	24'7"		
Shipping Length (with bucket level on ground)*†	8199 mm	26'11"	8781 mm	28'10"		
Hinge Pin Height at Carry Height	647 mm	2'1"	782 mm	2'7"		
Hinge Pin Height at Maximum Lift	4027 mm	13'3"	4527 mm	14'10"		
Lift Arm Clearance at Maximum Lift	3280 mm	10'9"	3634 mm	11'11"		
Dump Clearance at Maximum Lift and 45° Discharge*†	2876 mm	9'5"	3382 mm	11'1"		
Reach at Maximum Lift and 45° Discharge*†	1430 mm	4'8"	1465 mm	4'10"		
Dump Angle at Maximum Lift and Dump (on stops)*	51 deg	rees	48 degrees			
Rack Back at Maximum Lift*	59 deg	rees	59 degrees			
Rack Back at Carry Height*	49 deg	rees	49 degrees			
Rack Back at Ground*	36 deg	36 degrees		grees		
Clearance Circle (radius) to Counterweight	6023 mm	19'10"	6023 mm	19'10"		
Clearance Circle (radius) to Outside of Tires	5985 mm	19'8"	6001 mm	19'9"		
Clearance Circle (radius) to Inside of Tires	3219 mm	10'7"	3219 mm	10'7"		
Width over Tires (unloaded)	2814 mm	9'3"	2814 mm	9'3"		
Width over Tires (loaded)	2822 mm	9'3"	2822 mm	9'3"		
Tread Width	2140 mm	7'0"	2140 mm	7'0"		
	Rack Back at Carry Height* Rack Back at Ground* Clearance Circle (radius) to Counterweight Clearance Circle (radius) to Outside of Tires Clearance Circle (radius) to Inside of Tires Width over Tires (unloaded)	Height to Axle Centerline Height to Top of Hood 2697 mm Height to Top of Exhaust Pipe 3413 mm Height to Top of ROPS 3451 mm Height to Top of Product Link Antenna 3653 mm Height to Top of Warning Beacon 3747 mm Ground Clearance 367 mm Center Line of Rear Axle to Edge of Counterweight 1942 mm Center Line of Rear Axle to Hitch 1675 mm Wheelbase 3350 mm Overall Length (without bucket) 80906 mm Shipping Length (with bucket level on ground)*† 8199 mm Hinge Pin Height at Carry Height Hinge Pin Height at Maximum Lift 4027 mm Lift Arm Clearance at Maximum Lift 3280 mm Dump Clearance at Maximum Lift and 45° Discharge*† 2876 mm Reach at Maximum Lift and 45° Discharge*† 1430 mm Dump Angle at Maximum Lift and Dump (on stops)* S1 deg Rack Back at Carry Height* 49 deg Rack Back at Ground* 6023 mm Clearance Circle (radius) to Counterweight 6023 mm Clearance Circle (radius) to Outside of Tires 5985 mm Clearance Circle (radius) to Inside of Tires 3219 mm Width over Tires (unloaded) 2821 mm	Height to Axle Centerline         747 mm         2'5"           Height to Top of Hood         2697 mm         8'10"           Height to Top of Exhaust Pipe         3413 mm         11'2"           Height to Top of ROPS         3451 mm         11'4"           Height to Top of Product Link Antenna         3653 mm         12'0"           Height to Top of Warning Beacon         3747 mm         12'4"           Ground Clearance         367 mm         1'2"           Center Line of Rear Axle to Edge of Counterweight         1942 mm         64"           Center Line of Rear Axle to Hitch         1675 mm         5'6"           Wheelbase         3350 mm         11'0"           Overall Length (without bucket)         6906 mm         22'8"           Shipping Length (with bucket level on ground)*†         8199 mm         26'11"           Hinge Pin Height at Carry Height         647 mm         21"           Hinge Pin Height at Maximum Lift         4027 mm         13'3"           Lift Arm Clearance at Maximum Lift and 45° Discharge*†         2876 mm         9'5"           Reach at Maximum Lift and 45° Discharge*†         1430 mm         4'8"           Dump Angle at Maximum Lift and Dump (on stops)*         51 degrees           Rack Back at Maximum Lift and Dump (on stops)*	Height to Axle Centerline         747 mm         2'5"         747 mm           Height to Top of Hood         2697 mm         810"         2697 mm           Height to Top of Exhaust Pipe         3413 mm         11'2"         3413 mm           Height to Top of ROPS         3451 mm         11'4"         3451 mm           Height to Top of Product Link Antenna         3653 mm         12'0"         3653 mm           Height to Top of Warning Beacon         3747 mm         12'4"         3747 mm           Ground Clearance         367 mm         12'4"         3747 mm           Center Line of Rear Axle to Edge of Counterweight         1942 mm         6'4"         1942 mm           Center Line of Rear Axle to Hitch         1675 mm         5'6"         1675 mm           Wheelbase         3350 mm         11'0"         3350 mm           Overall Length (without bucket)         6906 mm         22'8"         7488 mm           Shipping Length (with bucket level on ground)*†         8199 mm         26'11"         8781 mm           Hinge Pin Height at Carry Height         4027 mm         13'3"         4527 mm           Hinge Pin Height at Maximum Lift         3280 mm         10'9"         3634 mm           Dump Clearance at Maximum Lift and 45° Discharge*†         2876 m		

<sup>\*</sup>With 3.1 m³ (4.1 yd³) general purpose pin on bucket with BOCE (see Operating Specifications for other Buckets).

All height and tire related dimensions are with Michelin 23.5R25 XHA2 L3 radial tires (see Tire Option Chart for other tires). "Width Over Tires" dimensions are over the bulge and include growth.

<sup>†</sup>Dimensions are listed in Operating Specification charts.

#### **Tire Options**

Tire Brand	Michelin	Bridgestone	Goodyear	Bridgestone	Bridgestone	Michelin	Bridgestone
Tire Size	23.5R25	23.5R25	23.5R25	23.5-25	23.5R25	750/65R25	23.5-25
Tread Type	L-3	L-3	L-3	L-3	L-3	L-3	L-3
Tread Pattern	XHA2	VMT	RT-3B	SRG LD	VJT	XLD	VL2
Width over Tires – Maximum (empty)*	2814 mm	2805 mm	2835 mm	2768 mm	2798 mm	2948 mm	2769 mm
	9'2"	9'2"	9'4"	9'1"	9'2"	9'8"	9'1"
Width over Tires – Maximum (loaded)*	2822 mm	2834 mm	2846 mm	2795 mm	2831 mm	2965 mm	2782 mm
	9'3"	9'4"	9'4"	9'2"	9'3"	9'9"	9'2"
Change in Vertical Dimensions	0 mm	−3 mm	−1 mm	1 mm	–6 mm	−6 mm	14 mm
(average of front and rear)	0"	-0.1"	0"	0"	-0.2"	-0.2"	0.6"
Change in Horizontal Reach	0 mm	6 mm	3 mm	-16 mm	6 mm	11 mm	3 mm
	0"	0.2"	0.1"	-0.6"	0.2"	0.4"	0.1"
Change in Clearance Circle to Outside of Tires	0  mm	12 mm	24 mm	–27 mm	9 mm	143 mm	–40 mm
	0"	0.5"	1"	-1.1"	0.4"	5.6"	-1.6"
Change in Clearance Circle to Inside of Tires	0 mm	-12 mm	-24 mm	27 mm	–9 mm	-143 mm	40 mm
	0"	-0.5"	-1"	1.1"	-0.4"	-5.6"	1.6"
Change in Operating Weight (without Ballast)	0 kg	188 kg	127 kg	–248 kg	168 kg	801 kg	-100  kg
	0 lb	414 lb	280 lb	−547 lb	370 lb	1,766 lb	-220 lb
Change in Static Tipping Load – Straight	0 kg	125 kg	85 kg	-165 kg	112 kg	534 kg	–67 kg
	0 lb	276 lb	187 lb	-364 lb	247 lb	1,177 lb	-148 lb
Change in Static Tipping Load – Articulated	0 kg	109 kg	74 kg	−144 kg	98 kg	466 kg	–58 kg
	0 lb	240 lb	163 lb	−317 lb	216 lb	1,027 lb	-128 lb

<sup>\*</sup>Width over bulge and includes tire growth.

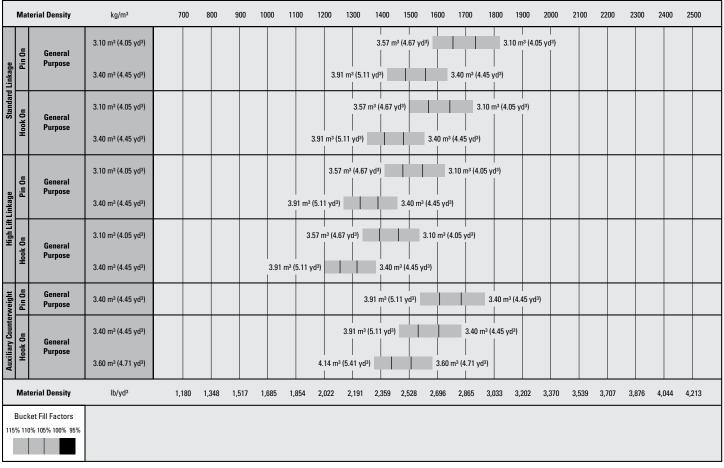
#### **Bucket Fill Factors and Selection Chart**

The bucket size must be chosen based on the density of the material and on the expected fill factor. The Cat Performance Series Buckets with longer floor, larger bucket opening, increased repository angle, rounded side boards and integrated spill guard, demonstrate fill factors significantly higher than previous generation or non Cat buckets. The actual volume handled by the machine is thus often larger than the rated capacity.

Loose Material		Material Density	Fill Factor (%)*
Earth/Clay		1500-1700 kg/m³ (2,528-2,865 lb/yd³)	115
Sand and Gravel		1500-1700 kg/m³ (2,528-2,865 lb/yd³)	115
Aggregate:	25-76 mm (1 to 3 in)	1600-1700 kg/m³ (2,696-2,865 lb/yd³)	110
	19 mm (0.75 in) and smaller	1800 kg/m³ (3,033 lb/yd³)	105
Rock:	76 mm (3 in) and larger	1600 kg/m³ (2,696 lb/yd³)	100

<sup>\*</sup>As a % of ISO 7546 rated capacity.

Note: Fill Factors achieved will also depend on whether the product is washed or not washed.



Note: All buckets are showing Bolt-On Edges.

#### **Operating Specifications with Buckets**

Linkage		Standard Linkage				High Lift Linkage		
Bucket Type		General Purpose				Pin On		
Edge Type		Bolt-On Cutting Edges	Teeth and Segments	Tips	Bolt-On Cutting Edges	Teeth and Segments	Tips	_ Change**
Capacity – Rated	m³	3.10	3.10	2.90	3.40	3.40	3.20	_
	yd³	4.05	4.05	3.79	4.45	4.45	4.19	_
Capacity – Rated at 110% Fill Factor	$m^3$	3.41	3.41	3.19	3.74	3.74	3.52	_
	yd³	4.46	4.46	4.17	4.89	4.89	4.60	_
Width	mm	2927	2994	2994	2927	2994	2994	_
	ft/in	9'7"	9'9"	9'9"	9'7"	9'9"	9'9"	_
16† Dump Clearance at Maximum Lift	mm	2876	2758	2758	2819	2700	2700	505
and 45° Discharge	ft/in	9'5"	9'0"	9'0"	9'3"	8'10"	8'10"	1'7"
17† Reach at Maximum Lift and 45° Discharge	mm	1429	1540	1540	1473	1582	1582	35
	ft/in	4'8"	5'0"	5'0"	4'10"	5'2"	5'2"	1"
Reach at Level Lift Arm and Bucket Level	mm	2688	2849	2849	2761	2922	2922	374
	ft/in	8'9"	9'4"	9'4"	9'0"	9'7"	9'7"	1'2"
A† Digging Depth	mm	90	90	60	90	90	60	4
	in	3.5"	3.5"	2.3"	3.5"	3.5"	2.3"	0.1"
12† Overall Length	mm	8199	8372	8372	8272	8445	8445	583
	ft/in	26'11"	27'6"	27'6"	27'2"	27'9"	27'9"	1'11"
B† Overall Height with Bucket at Maximum Lift	mm	5525	5525	5525	5597	5597	5597	506
	ft/in	18'2"	18'2"	18'2"	18'5"	18'5"	18'5"	1'8"
Loader Clearance Circle with Bucket	mm	13 762	13 931	13 931	13 805	13 975	13 975	393
at Carry Position	ft/in	45'2"	45'9"	45'9"	45'4"	45'11"	45'11"	1'4"
Static Tipping Load, Straight	kg	12 769	12 629	12 912	12 605	12 463	12 742	-1277
(With Tire Deflection)*	lb	28,144	27,834	28,458	27,783	27,469	28,083	-2,814
Static Tipping Load, Straight	kg	13 510	13 368	13 658	13 349	13 205	13 491	-1436
(No Tire Deflection)*	lb	29,776	29,463	30,103	29,421	29,105	29,734	-3,165
Static Tipping Load, Articulated	kg	11 004	10 864	11 129	10 847	10 705	10 966	-1184
(With Tire Deflection)*	lb	24,254	23,944	24,529	23,908	23,594	24,169	-2,610
Static Tipping Load, Articulated	kg	11 759	11 617	11 889	11 605	11 461	11 728	-1333
(No Tire Deflection)*	lb	25,917	25,604	26,203	25,577	25,260	25,849	-2,939
Breakout Force	kN	181	179	196	170	169	184	-9
	lbf	40,706	40,421	44,216	38,333	38,050	41,455	-2,026
Operating Weight*	kg	19 214	19 322	19 165	19 307	19 415	19 258	603
	1b	42,346	42,584	42,238	42,552	42,790	42,444	1,328

<sup>\*</sup>Static tipping loads and operating weights shown are based on a machine configuration with Michelin 23.5R25 XHA2 L3 radial tires, full fluids, operator, standard counterweight, cold start, roading fenders, Product Link, manual diff lock/open axles (front/rear), power train guard, secondary steering and sound suppression.

(With Tire Deflection) Full compliance to ISO 14397-1:2007 Sections 1 thru 6, which requires 2% verification between calculations and testing. (No Tire Deflection) Compliance to ISO 14397-1:2007 Sections 1 thru 5.

Other buckets are available and offerings vary by region. Consult your local Cat dealer for further details.

<sup>\*\*</sup>Maximum values.

<sup>†</sup>Illustration shown with Dimension charts.

#### **Operating Specifications with Buckets**

Linkage		Standard Linkage				High Lift		
Bucket Type		General Purpose			Hook On		Linkage Change**	
Edge Type		Bolt-On Cutting Edges	Teeth and Segments	Tips	Bolt-On Cutting Edges	Teeth and Segments	Tips	
Capacity – Rated	m³	3.10	3.10	2.90	3.40	3.40	3.20	_
	yd³	4.05	4.05	3.79	4.45	4.45	4.19	_
Capacity – Rated at 110% Fill Factor	m³	3.41	3.41	3.19	3.74	3.74	3.52	_
	$yd^3$	4.46	4.46	4.17	4.89	4.89	4.60	_
Width	mm	2927	2994	2994	2927	2994	2994	_
	ft/in	9'7"	9'9"	9'9"	9'7"	9'9"	9'9"	_
<b>16</b> † Dump Clearance at Maximum Lift	mm	2837	2718	2718	2779	2660	2660	505
and 45° Discharge	ft/in	9'3"	8'11"	8'11"	9'1"	8'8"	8'8"	1'7"
17† Reach at Maximum Lift and 45° Discharge	mm	1475	1585	1585	1518	1627	1627	35
	ft/in	4'10"	5'2"	5'2"	4'11"	5'4"	5'4"	1"
Reach at Level Lift Arm and Bucket Level	mm	2748	2909	2909	2821	2982	2982	374
	ft/in	9'0"	9'6"	9'6"	9'3"	9'9"	9'9"	1'2"
A† Digging Depth	mm	90	90	60	90	90	60	4
	in	3.5"	3.5"	2.3"	3.5"	3.5"	2.3"	0.1"
12† Overall Length	mm	8259	8432	8432	8332	8505	8505	583
	ft/in	27'2"	27'8"	27'8"	27'5"	27'11"	27'11"	1'11"
B† Overall Height with Bucket at Maximum Lift	mm	5558	5558	5558	5630	5630	5630	506
	ft/in	18'3"	18'3"	18'3"	18'6"	18'6"	18'6"	1'8"
Loader Clearance Circle with Bucket	mm	13 789	13 961	13 961	13 833	14 006	14 006	393
at Carry Position	ft/in	45'3"	45'10"	45'10"	45'5"	46'0"	46'0"	1'4"
Static Tipping Load, Straight	kg	12 183	12 043	12 373	12 051	11 909	12 237	-1277
(With Tire Deflection)*	lb	26,853	26,544	27,271	26,561	26,249	26,971	-2,814
Static Tipping Load, Straight	kg	12 913	12 771	13 113	12 784	12 641	12 981	-1436
(No Tire Deflection)*	lb	28,461	28,148	28,902	28,176	27,860	28,610	-3,165
Static Tipping Load, Articulated	kg	10 445	10 305	10 617	10 319	10 178	10 488	-1184
(With Tire Deflection)*	lb	23,022	22,713	23,400	22,744	22,432	23,116	-2,610
Static Tipping Load, Articulated	kg	11 189	11 047	11 371	11 066	10 923	11 245	-1333
(No Tire Deflection)*	lb	24,661	24,349	25,063	24,391	24,075	24,785	-2,939
Breakout Force	kN	172	171	186	162	161	175	_9
	lbf	38,754	38,471	41,942	36,598	36,318	39,451	-2,026
Operating Weight*	kg	19 683	19 791	19 634	19 753	19 861	19 704	603
	lb	43,382	43,620	43,274	43,536	43,774	43,428	1,328
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<sup>\*</sup>Static tipping loads and operating weights shown are based on a machine configuration with Michelin 23.5R25 XHA2 L3 radial tires, full fluids, operator, standard counterweight, cold start, roading fenders, Product Link, manual diff lock/open axles (front/rear), power train guard, secondary steering and sound suppression.

(With Tire Deflection) Full compliance to ISO 14397-1:2007 Sections 1 thru 6, which requires 2% verification between calculations and testing. (No Tire Deflection) Compliance to ISO 14397-1:2007 Sections 1 thru 5.

Other buckets are available and offerings vary by region. Consult your local Cat dealer for further details.

<sup>\*\*</sup>Maximum values.

<sup>†</sup>Illustration shown with Dimension charts.

#### **Operating Specifications with Buckets – Auxiliary Counterweight**

Package			<b>Auxiliary Counterweight</b>	
Bucket Type		General Purpose – Pin On		Purpose – k On
Edge Type		Bolt-On Cutting Edges	Bolt-On Cutting Edges	Bolt-On Cutting Edges
Capacity – Rated	m³	3.40	3.40	3.60
	yd³	4.45	4.45	4.71
Capacity – Rated at 110% Fill Factor	m³	3.74	3.74	3.96
	yd³	4.89	4.89	5.18
Width	mm	2927	2927	2927
	ft/in	9'7"	9'7"	9'7"
6† Dump Clearance at Maximum Lift	mm	2819	2779	2753
and 45° Discharge	ft/in	9'3"	9'1"	9'0"
7† Reach at Maximum Lift and 45° Discharge	mm	1473	1518	1539
	ft/in	4'10"	4'11"	5'0"
Reach at Level Lift Arm and Bucket Level	mm	2761	2821	2856
	ft/in	9'0"	9'3"	9'4"
A† Digging Depth	mm	90	90	90
	in	3.5"	3.5"	3.5"
2† Overall Length	mm	8401	8461	8496
	ft/in	27'7"	27'10"	27'11"
<b>B</b> † Overall Height with Bucket at Maximum Lift	mm	5597	5630	5664
	ft/in	18'5"	18'6"	18'7"
Loader Clearance Circle with Bucket	mm	13 805	13 833	13 854
at Carry Position	ft/in	45'4"	45'5"	45'6"
Static Tipping Load, Straight	kg	13 644	13 074	13 006
(With Tire Deflection)*	1b	30,072	28,815	28,666
Static Tipping Load, Straight	kg	14 462	13 880	13 814
(No Tire Deflection)*	1b	31,874	30,592	30,446
Static Tipping Load, Articulated	kg	11 704	11 163	11 099
(With Tire Deflection)*	lb	25,797	24,604	24,462
Static Tipping Load, Articulated	kg	12 541	11 988	11 926
(No Tire Deflection)*	lb	27,640	26,422	26,285
Breakout Force	kN	170	162	158
	lbf	38,333	36,598	35,639
Operating Weight*	kg	19 807	20 253	20 287
	lb	43,654	44,638	44,713

<sup>\*</sup>Static tipping loads and operating weights shown are based on a machine configuration with Michelin 23.5R25 XHA2 L3 radial tires, full fluids, operator, standard counterweight, cold start, roading fenders, Product Link, manual diff lock/open axles (front/rear), power train guard, secondary steering and sound suppression.

(With Tire Deflection) Full compliance to ISO 14397-1:2007 Sections 1 thru 6, which requires 2% verification between calculations and testing.

Other buckets are available and offerings vary by region. Consult your local Cat dealer for further details.

<sup>(</sup>No Tire Deflection) Compliance to ISO 14397-1:2007 Sections 1 thru 5.

<sup>†</sup>Illustration shown with Dimension charts.

#### **Standard and Optional Equipment**

Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional
POWER TRAIN		
Axles, ecology drains	✓	
Axles, manually actuated differential lock front axle, open differential rear axle	✓	
Axles – automatic front/rear differential locks, axle oil cooler, extreme temperature seals, seal guards		<b>√</b>
Brake wear indicators	✓	
Brakes, full hydraulic enclosed wet-disc with Integrated Braking System (IBS)	✓	
Cat Clean Emissions Module (CEM) with Diesel Particulate Filter (DPF) and Diesel Exhaust Fluid (DEF) tank and pump (Tier 4 Final/Stage V models)	✓	
Economy mode (selectable)	✓	
Engine, Cat C7.1 – Tier 3/Stage IIIA equivalent or Tier 4 Final/Stage V	✓	
Fan, radiator, electronically controlled, hydraulically driven, temperature sensing, on demand	✓	
Fan, VPF (variable pitch fan), automatic and manual control		<b>√</b>
Fuel priming pump (electric)	✓	
Fuel/water separator	✓	
Parking brake, disc and caliper	✓	
Precleaner, engine air intake	✓	
Radiator, high debris, wide fin spacing		✓
Switch, transmission neutralizer lockout	✓	
Torque converter, locking clutch with free wheel stator	✓	
Transmission, automatic countershaft power shift (5F/3R)	✓	
CAT® CONNECT TECHNOLOGY		
Detect technologies: Rear vision camera Cat rear object detection	✓	<b>√</b>
Link technologies: Product Link VIMS™	✓	<b>√</b>
Payload technologies: Cat Production Measurement 2.0 (Cat PM), Printer, Cat Production Measurement, Aggregate Autodig		<b>√</b>
Machine security system		✓

	Standard	Optional
PERATOR ENVIRONMENT	Junuard	o paronar
Air conditioner, heater, and defroster	✓	
(auto temp and fan)	<b>v</b>	
Beverage holders (2) with storage compartment for cell phone/MP3 player	✓	
Bucket/work tool function lockout	✓	
Cab access ladders and handrails	✓	
Cab air filter	✓	
Cab, pressurized and sound suppressed (ROPS/FOPS)	✓	
Cab tie-off	✓	
Coat hook (2)	✓	
Cover, HVAC metallic		✓
Door, remote opening system		✓
EH controls, SAL (single axis lever) lift and tilt function	<b>√</b>	
EH controls, joystick lift and tilt – additional integrated roller switches for 3 <sup>rd</sup> and 4 <sup>th</sup> functions		✓
EH controls, SAL 3 <sup>rd</sup> function – additional roller switch for 4 <sup>th</sup> function		✓
EH parking brake	✓	
Filter, carbon fresh air		✓
Full time rear vision display Work Area Vision System (WAVS)		✓
Horn, electric	✓	
Light, two dome (cab)	✓	
Mirrors, heated rearview external with integrated spot mirrors		✓
Mirrors, rearview external with integrated spot mirrors	✓	
Multi-function 18 cm (7 in) color LCD	✓	
touchscreen display for rear vision camera		
image display (reverse travel activated)		
and machine status, setting and health parameters		
Post mounted membrane 16 switch	✓	
keypad	-	
Precleaner, HVAC		✓
Precleaner, HVAC (RESPA)		✓
Radio, AM/FM/USB/MP3 Bluetooth		✓
Radio, AM/FM/CD/USB/MP3 Bluetooth		✓
Radio, AM/FM/CD/USB/MP3 Bluetooth with Satellite Sirius and XM		✓
Radio, CB ready		✓
Radio ready (entertainment) includes antenna, speakers and converter (12V, 10-amp)	✓	
F)		

## 950M Wheel Loader Standard and Optional Equipment

#### Standard and Optional Equipment (continued)

Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional
OPERATOR ENVIRONMENT (continued)		
Roof, metallic		✓
Seat, Cat Comfort (cloth) air suspension	✓	
Seat belt, 51 mm (2 in) retractable, with indicator	✓	
Seat belt, 76 mm (3 in) retractable, with indicator		✓
Seat, heated air suspension		✓
Steering, EH joystick, speed sensing with force feedback		✓
Steering, secondary		✓
Steering, steering wheel	✓	
Sun visor, front	✓	
Sun visor, rear		✓
Viscous mounts	✓	
Wet-arm wipers/washers front and rear, intermittent front wiper	✓	
Windows, rubber mounted		✓
Window, sliding (left and right sides)	✓	
Windows, with front guard		✓
Windows, with full guards front, rear and sides		✓
ELECTRICAL AND LIGHTING		
Alarm, back-up	✓	
Alternator, 145-amp brushed	✓	
Auxiliary halogen cab-mounted work lights (four additional) or		✓
Auxiliary front HI LED (two additional) and two additional auxiliary rear LED cab mounted work lights with 2 LED work lights in the radiator grill and LED front turn signals. Also includes replacement of the standard four halogen cab-mounted work lights with four LED work lights (the standard offering and only roading light available is the halogen roading light)		<b>√</b>
Batteries (2), maintenance free 1,400 CCA	✓	
External seat belt indicator light		✓
Ignition key; start/stop switch	✓	
Lighting system: four halogen work lights (cab mounted), two LED stop, turn, tail lights, two halogen roading lights (with signals), two halogen rear vision lights (hood mounted)	✓	

	Standard	Optional
ELECTRICAL AND LIGHTING (continued)		
Main disconnect switch	✓	
Receptacle start (cables not included)	✓	
Reversing strobes		✓
Starter, electric, heavy duty	✓	
Starting and charging system (24V)	✓	
Warning amber strobe beacon		✓
FLUIDS		
Premixed extended life coolant with	✓	
freeze protection to -34°C (-29°F)		
Premixed extended life coolant with		✓
freeze protection to -50°C (-58°F)		
HYDRAULICS		
Couplings, Cat O-ring face seal	<b>√</b>	
Hoses, Cat XT <sup>TM</sup>	✓	
Hydraulic oil cooler (swing out)	✓	
Hydraulic system, load sensing	✓	
Oil sampling valves	✓	
3 <sup>rd</sup> function with Ride Control – standard		✓
linkage, high lift linkage, forestry linkage		
4th function with Ride Control – standard		✓
linkage, high lift linkage, forestry linkage		
Remote diagnostic pressure taps	· ·	
Ride control, 2V	<b>√</b>	
Steering, load sensing	<b>√</b>	
LINKAGE		
Autolube		✓
Forestry		✓
High lift		✓
Kickout, lift and tilt, automatic	✓	
(adjustable in cab)		
Quick coupler ready		<b>√</b>
Z-bar, cast crosstube/tilt lever	✓	
STARTERS, BATTERIES, AND ALTERNATORS		
Cold start – 120V		✓
Cold start – 240V		✓
WORK TOOLS		
Forks, logging		✓
Forks, pallet		✓
Fusion quick coupler		✓
Performance Series buckets		✓

(continued on next page)

## 950M Wheel Loader Standard and Optional Equipment

Steel Mill (Tier 3 equivalent only)

#### Standard and Optional Equipment (continued)

Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional		Standard	Optional
COMPUTERIZED MONITORING SYSTEM			OTHER STANDARD AND OPTIONAL EQUIPME	NT	
With following gauges:	✓		Auto idle shutdown	✓	
Speedometer/tachometer			Cat Autolube System		✓
Digital gear range indicator Diesel Exhaust Fluid (DEF) level			Cold weather package: transmission filter		<b>√</b>
(Tier 4 Final/Stage V models) Temperature: engine coolant, hydraulic			bypass, fan pump bypass, jacket water or engine block heater, ether aid ready		
oil, transmission oil Fuel level			Ecology drains for engine, transmission, and hydraulics	✓	
With following warning indicators: Regeneration	✓		Fenders, front with mud-flap/rear with extension	✓	
Temperature: axle oil, engine intake			Fenders, roading		✓
manifold Pressure: engine oil, fuel pressure hi/low, primary steering oil, service			Filters: fuel, engine air, engine oil, hydraulic oil, transmission	✓	
brake oil			Fuel cooler	✓	
Battery voltage hi/low			Grease zerks	✓	
Engine air filter restriction			Grill, airborne debris	✓	
Hydraulic oil filter restriction Hydraulic oil low			Guard, power train		✓
Parking brake			Hitch, drawbar with pin	✓	
DEF low level (Tier 4 Final/			Hood, non-metallic power tilting	✓	
Stage V models) Transmission filter bypass			Platform, window washing		✓
Transmission inter bypass			Precleaner, turbine		✓
			Precleaner, trash		✓
			Precleaner rain cap	✓	
			Service centers (electrical and hydraulic)	✓	
			Sight gauges: engine coolant, hydraulic oil, and transmission oil level	✓	
			Toolbox	✓	
			Vandalism protection caplocks	✓	
			OTHER CONFIGURATIONS		
			Industrial and waste handler		✓
			Forestry		✓



For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

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